A-102 340-417

TELERATE SYSTEMS 577-689

M-4 10/28/82 TAA 2372

HVAC SPECIFICATIONS

hall be free from defects in workmanship and materials for a period of or final acceptance and shall meet all local and state codes. All or are discovered within this period shall be repaired by the isfaction of the Engineer and at no additional cost to the Authority.

hall examine the site of the proposed work to determine the existing may affect his work.
ion of the Contract Drawings and Specifications to call for finished ready for operation. All materials shall be new and of first-quality k, incidental accessories or other details not shown but necessary to plete and perfect, and in all respects ready for operation, even if not cified, shall be provided by the Contractor at no additional cost to the

ings are generally diagrammatic and are intended to convey the scope of general arrangement of ductwork and pouches, and induction units. ipes, utilities, etc. that are damaged during construction period, to the Contractor's negligence they shall be repaired or replaced and left in a condition satisfactory to the Engineer.
o pouches with architectural reflected ceiling plans.
s, etc. penetrating rated walls, shall not exceed 1/2"
o th mineral wool or equivalent. Perimeter shall be closed
th escutcheons on both sides of this construction as
t .5 of N.Y.C. Building Code.

furnished, installed and fabricated in accordance with the SMACNA Low Velocity Duct Construction Standards Manual, galvanized steel. All square elbows shall be provided with mum 4' centers. Provide access doors at all fire and acce
-offs all be equipped with volume controllers.
flexible connectors shall be 7"Ø unless otherwise indicated on

ucts with hangers secured to structural steel above at ing 8'0". Install additional steel as required.
to the supply duct and the diffuser plenum of ceiling pouches M Co. 800 sealant and clamped with Stainless Steel Ideal

l be as per latest SMACNA Standards .
ound flexible duct connection that penetrates the 2 hr. rated the induction unit cover. Install new 4", 26 gauge galvanized seal all joints with 3M Co. 800 sealant and stainless steel ps. A maximum length of 4' -0" of flexible ductwork shall be to t induction units.

ES, DIFFUSERS

are manufactured by Anemostat--Waterloo or an approved equal.
ked white enamel.

shall be Model #S2V0
shall be Model #S3HOD
shall be Model #S3HD
shall be Model DF with No. 41 core pattern (4-way)

IONING UNIT

a packaged air conditioning unit. Unit shall be complete ntrol, filters, compressor, evaporator coil, condenser ve and other system components required to provide proper r the space designated on the Contract Drawings. Filter L listed; 45% efficiency.
urnished with the following accessories:

P
tch

WER TOR	EXTERNAL S.P.	TOTAL COOLING CAP. (BTU) 72 DB, 60WB	AUXILIARY COOLING WATER GPM 85° F E.W.T.	MODEL NO.	TOTAL WT.	EER
0	.1	84,000	20	BA008	770 lbs.	10.4

hase and for 460 volts.

factory run, tested and rated in accordance with ARI standards mplete with water regulator valve. Valve shall be rated for essure.
similar or equal to Carrier Corporation and rated at 150 lbs.

PIPING AND ACCESSORIES

PIPING

A. Test Requirements (Aux. Cooling Water)

Operating Pressure	125 PSIG
Operating Temperature	65 F - 95 F
Hydrostatic Test Pressure	1.5 x Operating Pressure
Duration of Test	2 hours

Isolate equipment, controls, instruments and valves from the piping system during hydrostatic tests.

B. Piping & Fittings

System	Pipe	Fitting
Aux. Cooling Water	Black Steel Pipe, Conforming to ASTM A106 Schedule #40 Grade B	2-1/2" cast iron screwed 250 lb. class
A.C. Unit Condensate Drain	Copper ASTM B-88 Hard Temper Type (L)	Wrought Copper Solder Joint 5 ANSI B16.18

Vent auxiliary cooling water piping at all high points.

C. Accessories

1. Unions for auxiliary cooling water service shall be smaller and equal to 250 lb. class, malleable iron with bronze seats, Grinnell Figure 554, U.L.
2. Nipples 6" length or less shall be extra heavy and shall be formed from material having the same quantities as the adjacent piping. Close nipples shall not be used.
3. Braided type flexible connector shall be Vibration Mounting and Control Inc., (VICO) Model MFP Style NE Max. 200 PSIG or approved equal.

D. Soldered Joints

95-5 Tin Antimony Solder having a melting point greater than 450 F. Excess solder shall be removed while still in a molten state and a fillet left at the face of the fitting.

E. Thermometers

1. Thermometers for piping shall be of the "all angle" (universal), separate socket, industrial type with #304 stainless steel extension neck wells.
2. The thermometer for auxiliary cooling shall operate at 0 - 160 F range and shall include a sufficient safety margin at either end.
3. Thermometers shall be manufactured by Albert A. Weiss, Weksler Instrument Co., Ascroft or approved equal.

F. Pressure Gauges

1. Pressure gauges shall be of the bourdon tube spring type with 4-1/2 dial sizes. Gauges shall have black aluminum cases with black numbers on white background. The gauges shall be as manufactured by Albert A. Weiss, Weksler Instrument Co., Ascroft or approved equal.
2. The pressure range for the auxiliary cooling, shall be 0 F - 300 F PSI and the Bourdon tube shall be bronze.

G. Strainers

Strainers shall be similar and equal to those manufactured by Mueller Steam Specialty Co. Screwed "Y" strainers for pipes 2" and smaller shall be 250 lb. No. 11. The screens for the strainers shall be stainless steel. Strainers shall be provided with capped blowdown valves.

H. Sleeves and Escutcheons

Exposed piping passing through walls shall be fitted with chromium plated cast brass escutcheons with fastening set screws similar and equal to Grinnell & Mason Manufacturing Co., F & S Manufacturing Co. or Rittenhouse Stearn and Rawlins Co.

I. Pipe Supports and Hangers

1. All supports and parts shall conform to the latest requirements of the ANSI Code for pressure piping B31.10 and MSS standard practice SP-58.
2. Hangers shall be manufactured by Grinnell Fire Control Inc., Mason, Blackman Co. or an approved equal.
3. Pipe hangers, rods, inserts and clamps shall be those approved for their respective uses by the Underwriters' Laboratories, Inc.
4. Unless otherwise specifically approved, hanger size and spacing shall be:

Pipe Sizes	Max Hanger Spacing	Minimum Rod Sizes
1/2" to 1"	9 ft. o.c.	3/8"
1-1/2" to 2-1/2"	9 ft. o.c.	1/2"

J. Valves

Type	Size	Pressure	Jenkins Fig. No.	Crane Fig. No.	Stockham Fig. No.
Gate	Up to 2"	125 PSI	470	428-UB	B-105
Gate	Up to 2"	150 PSI	490	431	B-128

1. Balancing valves shall be non-lubricating type plug valve with position indicator, memory stop, 150 lb. Valves shall be as manufactured by Homestead Industries or approved equal.

K. Pipe and Valve Identification

1. Provide and affix a set of approved adhesive bands identifying the system and direction of flow.
2. Each set shall consist of one band on which the name of the service is printed in letters not less than 1 inch high.
3. Bands shall be in colors as indicated below and shall conform to ANSI Standard A-13.1.

System	Background	Letters and Arrows
Auxiliary Cooled Water	Green	Black

Adhesive bands shall be W.H. Brady Company, Seton Corp. or an approved equal.

L. Threaded Joints

Steel pipe threaded joints shall be made tight using only an approved pipe joint compound or tape, placed on the male thread only.

CUTTING AND PATCHING

1. Piping passing through walls shall have a trim opening cut no greater than necessary for the installation of a sleeve secured therein. Sleeve shall be 1/2" in diameter larger than the outside diameter of the pipe or required insulation passing through and of sufficient length to be flush with the finished wall surfaces.
2. Piping passing through concrete floors shall have the opening core drilled 1/2" in diameter larger than the outside diameter of the pipe passing through.
3. Annular spaces between piping and sleeves or core drilled floor openings shall be packed with thermafiber and sealed to retain the fire integrity of the walls and floors with a non-hardening compound similar and equal to Uniseal or Duxseal as manufactured by Johns-Manville Co.

BALANCING

The Contractor shall provide the services of an air balancing and hydronic testing specialist who specializes in Heating, Ventilating and Air Conditioning systems. Perform all balancing in accordance with sheetmetal and air conditioning Contractors National Association (SMACNA)

SUBMITTALS

Submit for approval three (3) sets of show drawings of ductwork, piping and details of fire damper installations. Submit three (3) sets of catalog cuts for fire dampers, exhaust fan, ceiling grilles, ceiling diffusers, linear diffusers, ceiling or side blow registers, valves, accessories and three copies of air balancing data report.

INTRADESIGN GROUP INC. 170 FIFTH AVE N.Y. N.Y.	TCA/TAA NO. 2372 DATE APPROVED 11/4/82
MECHANICAL SPECIFICATIONS	ISSUE 9/28/82 REV 10/28/82
TELERATE SYSTEMS INC ONE WORLD TRADE CENTER N.Y. N.Y. 10048	M-4